REMARKS

The Applicant has received and reviewed the Official Action mailed by the Office on April 1, 2008 (the "Office Action"). The Applicant graciously appreciates the Office's attention to the instant application and submits this paper as a fully-responsive reply to the Office Action. The Applicant requests favorable consideration of this response and pending claims 1-15 at the earliest convenience of the Office.

Rejection of Claims 1-15 under 35 USC §103(a)

Claims 1-15 were rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No. 6,665,729 to Walker ("Walker") in view of US Pub. No. 20040001514 A1 to Wookey et al. ("Wookey"). The Applicant respectfully traverses this rejection.

Applicable Legal Standard for Establishing a *Prima Facie* Case of Obviousness

In *KSR Intn'l Co.l v. Teleflex, Inc. (KSR)*, 550 U.S. ___, 82 USPQ2d 1385 (2007), the U.S. Supreme Court reiterated that the appropriate framework for conducting the objective analysis required to make a determination of obviousness under 35 U.S.C. § 103 is provided in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual

inquiries. (MPEP 2141 II.) As specified in *Graham*, a proper obviousness analysis is based on factual inquiries, which, in part, require that: 1) the scope and content of the prior art are to be determined; 2) differences between the prior art and the claims at issue are to be ascertained; and 3) the level of ordinary skill in the pertinent art is to be resolved. (*Id.* (citing *Graham*, at 17-18, 148 USPQ at 467)).

Applicant's Response

Claims 1-10

Claim 1 recites:

A computer-implemented process comprising:

determining a size of a data structure;

selecting a data streaming protocol when the size exceeds a predetermined limit;

selecting a buffered data protocol otherwise;

sending data of the data structure consistent with the selected protocol.

Walker is directed to a modified stream-based protocol implementation to compensate for inefficiencies associated with conventional stream based protocols. (Walker, Abstract.) The implementation disclosed in Walker compensates for limitations that arise when a transaction-based protocol is used together with stream-based protocol, the stream-based protocol is ***modified*** to take advantage of certain characteristics of transaction-based protocols (Walker, Col. 2 lines 50-55.)

While the Walker reference describes modifying the stream-based protocol to take advantage of the desirable characteristics of transaction-based protocol, Claim 1, in contrast, recites a computer-implemented process comprising: determining a size of a data structure; selecting a data streaming protocol when the size exceeds a predetermined limit; selecting a buffered data protocol otherwise; sending data of the data structure consistent with the selected protocol."

Walker fails to teach "***determining a size of a data structure; selecting a data streaming protocol when the size exceeds a predetermined limit; selecting a buffered data protocol otherwise; sending data of the data structure consistent with the selected protocol***".

Walker instead describes, with reference to the flow diagram in Fig. 4 (reproduced below), employing a modified TCP/IP protocol stack at the client which utilizes characteristics of the transaction-based protocol to provide more efficient network operation. This modified TCP/IP stack is able to reduce system delays while increasing network efficiency.

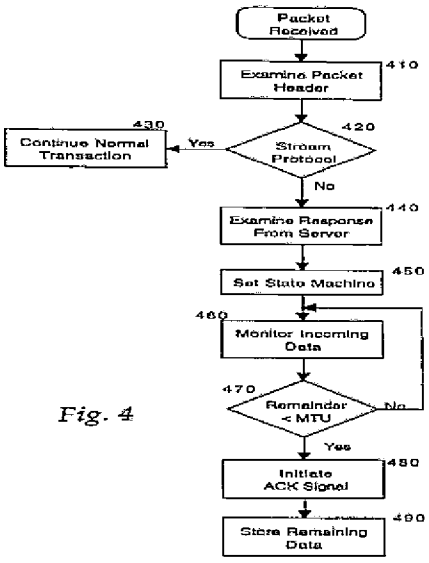

Fig. 4

Initially, after receiving a data packet to be sent to the server, the modified TCP/IP protocol stack determines ***whether a transaction-oriented protocol or a stream-based protocol is being employed in the application layer of the client.*** If a stream-based protocol is determined to be employed in the application layer of the client processor, then no further inquiry is necessary and conventional client server transactions are continued. If the application layer protocol is determined to be transaction-based, a response packet is awaited from the server. Next, the header of the server's response to the request is examined to determine the total amount of data to be transmitted. Once this information is known, the TCP protocol stack sets a state machine to a value related to the amount of data to be received. The client keeps track of the segments being received. Through comparison of the data remaining with the MTU value for the network, the client is able to determine when the amount of data that remains to be received is less than an MTU. When the client determines that the amount of data to be transferred

from the server is less than the MTU value, the modified TCP implementation initiates a preemptive ACK [acknowledgement] signal. ***In accordance with the stream-based protocol***, the ACK signal causes the server to send the next segment of data stored in the buffer, whether or not it comprises a complete MTU. Consequently, the remaining amount of data to be transmitted from the server is immediately sent to the client, without the delay normally associated with buffering of the data. Walker, Fig. 4, Col 5 lines 10-55.

The highlighted portion in the description of Fig. 4 of Walker discloses the determination of the protocol to be employed (stream-based/transaction-based) is made upon the **basis of application layer of the client**. The subject matter of claim 1 on the other hand, recites determining a size of a data structure; selecting a data streaming protocol when the size exceeds a predetermined limit; selecting a buffered data protocol otherwise. Thus, subject matter of claim 1 selects the protocol based on the size of the data structure as opposed to Walker which selects the protocol based on the application layer of the client.

Further, the next highlighted portion discloses that when transaction-based protocol is selected, (Walker, Blocks 440-490, Fig. 4) "**an ACK signal in accordance with the stream-based protocol is still sent out**". However, Walker discloses that it is a feature of TCP/IP (stream-based) protocol to send an acknowledgment signal, ACK, to the server upon successful receipt of a segment. (Walker, Col. 4 lines 61-65). Further, Walker also discloses that in contrast to the TCP protocol, a transaction-based protocol does not guarantee delivery of data

segments, and **therefore acknowledgments are not employed**. (Walker, Col. 5 lines 5-10). But, the modified stream-based protocol as described by Walker is a Transaction-based protocol modified by employing acknowledgement signal, which is a characteristic of transaction-based protocol. With this aspect in view, a careful analysis of Fig. 4 discloses that the implementation of Walker, based on the protocol being applied at the application layer of the client either uses conventional stream-based protocol or the modified TCP/IP protocol, which as described above is the conventional transaction-based protocol modified to generate acknowledgement signal to the client, wherein the acknowledgement signal is a feature of TCP/IP or stream based protocol.

The subject matter of claim 1 on the other hand recites sending data of the data structure consistent with the selected protocol. The subject matter of Claim 1 does not use a modification of protocol as described in Walker, which uses a **modified stream-based protocol** (transaction-protocol employing characteristics of stream-based protocol) when transaction-based protocol is selected. Instead claim 1 selects and uses a buffered protocol or a streaming protocol for sending data, the protocol selection based on the size of the data structure.

In fact, the Office admits that Walker fails to teach the claimed feature of selecting a data streaming protocol when the size exceeds a predetermined limit (examiner interpreting data stream protocol as bulk data protocol) (Office Action, Pg 3, paragraph 4). The examiner therefore turns to Wookey as teaching this feature. However, the cited portion in Wookey describes that a short message can

contain monitoring data, such as events or alarms, a response to a message sent in the other direction, bulk data transfer request or response infrastructure control message or other data. The cited evidence in Wookey and the preceding paragraphs have been reproduced below-

> *[0296] The remote services system 100 exchanges information between multiple components. The information is classified in two types, a short message type and bulk data type. With the short message type, short XML messages are used to send information harvested by the remote services proxy 210 to the application server 226 to acknowledge receipt of messages or to transmit control messages to request bulk transfer. Bulk data type is used to transfer data whose size is greater than, e.g., a few kilobytes, between both ends of the remote services system 100.*
> *[0297] More specifically, a short message can contain monitoring data, such as events or alarms, a response to a message sent in the other direction, bulk data transfer request or response infrastructure control message or other data.*

The paragraphs above disclose that the remote services system described by Wookey exchanges information which is either a short message type or a bulk data type. Here, bulk data type is the type of information whose size is greater than a stipulated limit. Bulk data type is not a protocol but is a classification of information to be exchanged between multiple components of the remote services system. Further, the bulk data transfer request is described as an example of the monitoring data that can be contained in a short message, but does not disclose selecting a data streaming protocol when size exceeds a predetermined limit.

With respect to protocols, Wookey describes Communication protocols in Paragraph [0077]-

[0077] The communications protocol module 440 provides support of the application level protocol that is used for the communication through the system. Modules of this type interface to support the use of Email and HTTP communications protocols. The communication protocol module 440 interfaces with remote services communications engineering personnel.

Here, Wookey describes that the communications protocol supports the use of email and HTTP protocols. However, Wookey fails to teach or suggest determining a size of a data structure; selecting a data streaming protocol when the size exceeds a predetermined limit; selecting a buffered data protocol otherwise; sending data of the data structure consistent with the selected protocol, as described in claim 1.

Accordingly, neither Wookey nor Walker teach or suggest any and/or all elements of independent claim 1. Applicant therefore requests reconsideration and withdrawal of the rejection.

Dependent claims 2-10 depend from independent claim 1 and are allowable by virtue of this dependency, as well as for additional features that each recites.

Claims 11-15

Claim 11 recites:

A computing system for handling messages
comprising:
means for processing data from memory;
means for determining a size of a data structure;
means for selecting a data streaming protocol when the size exceeds a predetermined limit;
means for selecting a buffered data protocol when the size does not exceed the predetermined limit;
means for sending data of the data structure utilizing the selected protocol.

Walker as discussed above with regard to claim 1 fails to disclose at least "determining a size of a data structure; selecting a data streaming protocol when the size exceeds a predetermined limit; selecting a buffered data protocol otherwise; sending data of the data structure consistent with the selected protocol." As mentioned above, Walker describes that determination of the protocol to be employed (stream-based/transaction-based) is made upon the basis of application layer of the client. Walker, Col 5 lines 17-20. Walker fails to teach selecting a data streaming protocol when the size exceeds a predetermined limit; selecting a buffered data protocol otherwise. Further, Wookey also fails to disclose selecting a data streaming protocol when the size exceeds a predetermined limit.

Accordingly, neither Wookey nor Walker teach or suggest any and/or all elements of independent claim 11. Applicant therefore requests reconsideration and withdrawal of the rejection.

Dependent claims 11-15 depend from independent claim 11 and are allowable by virtue of this dependency, as well as for additional features that each recites.

CONCLUSION

For at least the foregoing reasons, claims 1-15 are in condition for allowance. Applicant respectfully requests reconsideration and withdrawal of the rejections and an early notice of allowance.

If any issue remains unresolved that would prevent allowance of this case, **Applicant requests that the Examiner contact the undersigned attorney to resolve the issue**.

Respectfully submitted,

Date: July 22, 2008

By: /Christopher W. Lattin/

Christopher W. Lattin
Lee & Hayes, pllc
Reg. No. 51,275
(509) 324-9256 ext. 263